In the Claims

Claims 1-17 (Cancelled)

Claim 18 (Original): A method for testing a compound suspected of promoting or inhibiting phosphorylation of one or more proteins related to Alzheimer's disease, said method comprising: providing a mammalian cell; administering to said cell antichymotrypsin and said compound; and monitoring the phosphorylation state of said one or more proteins.

Claim 19 (Previously amended): The method of claim 18, wherein said protein is tau, APP, cdc-2/cyclin B, cdk5, p53, cdc47, MAD, cyclin D, or cyclin E.

Claims 20-21 (Cancelled)

Claim 22 (Previously amended): The method of claim 18, wherein said cell is neuronal.

Claims 23-42 (Cancelled)

Claim 43 (Currently amended): A transgenic mouse whose genome comprises at least one transgene comprising a nucleic acid sequence encoding ~~a protease inhibitor~~alpha-1-antichymotrypsin (ACT) operably linked to a glial fibrillary acidic protein (GFAP) promoter effective for expression of said nucleic acid sequence in the brain tissue of said transgenic mouse, wherein ~~said protease inhibitor interacts with amyloid beta peptides within the brain tissue of said transgenic mouse, and wherein said protease inhibitor is selected from the group consisting of antichymotrypsin (ACT), antitrypsin, and alpha-2 macroglobulin.~~ expression of said nucleic acid sequence encoding said ACT increases the rate or extent of amyloid formation in the brain tissue of said transgenic mouse.

Claims 44-46 (Cancelled)

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Claim 47 (New): The transgenic mouse of claim 43, wherein said GFAP promoter is devoid of ATG start codons.

Claim 48 (New): The transgenic mouse of claim 47, wherein said nucleic acid sequence is expressed in astrocytes within the brain tissue of said mouse.

Claim 49 (New): The transgenic mouse of claim 43, wherein said genome further comprises a second transgene comprising a nucleic acid sequence encoding an amyloid precursor protein (APP) V717 mutant.

Claim 50 (New): The transgenic mouse of claim 49, wherein said nucleic acid sequence encoding the APP V717 mutant is operably to a platelet-derived growth factor (PDGF) promoter.

Claim 51 (New): The transgenic mouse of claim 43, wherein said genome further comprises a non-functional apolipoprotein E (ApoE) gene.

Claim 52 (New): The transgenic mouse of claim 49, wherein said genome further comprises a non-functional apolipoprotein E (ApoE) gene.